



TECHNOLOGY FOR K-12 EDUCATORS

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TECHNOLOGY FOR K-12 EDUCATORS

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Needed-More-Than-Ever Funding Opportunities

OPPORTUNITIES WITH DEADLINES

● The American Institute of Aeronautics and Astronautics (AIAA) Classroom Grant can be used for classroom demonstration kits and science supplies, math and science software, supplies for making flying objects, supplies for robotic programs and other materials to help make science, mathematics and technology come alive in your classroom.

Eligibility: K–12 teachers

Deadlines: Quarterly; September 2011, January 2012, March 2012, June 2012

Awards: Up to \$200 per individual request (\$1,000 per school) each calendar year

Web: <http://www.aiaa.org/content.cfm?pageid=216>

● One hundred Kappa Delta Pi (KDP) Classroom Teacher Grants are being awarded in 2011 in honor of KDP's centennial anniversary. Grant requests can be in either of two categories: (1) classroom project or field trip; (2) classroom manipulatives, books and libraries, and other supplies.

Eligibility: PreK–12 public, private and home schools in the United States

Deadline: September 9, 2011

Award: Varies

Web: <http://www.kdp.org/educationalfoundation/classroomteachergrants.php>

● The Foundation for Rural Education and Development's Technology Grants for Rural Schools program was created to help meet the growing need for innovative technology in the classroom. The grants are funded by a donation from the Rural Telephone Finance Cooperative (RTFC) and strive to help public schools in rural areas served by OPASTCO members bring modern computers to every classroom, connect schools to the Internet and make sure that effective and engaging software and online resources are an integral part of the school curriculum.

Eligibility: Public schools in rural areas served by OPASTCO

Award: Grants generally range from \$5,000 to \$10,000

Deadline: September 16, 2011

Web: <http://www.fred.org/tech>



● The **Pepsi Refresh Project** is an effort to support those who generate innovative, optimistic ideas to move communities forward. Submit your “refreshing” idea in one of these categories: Art & Music, Education or Communities. Then encourage others to support it. The public votes to determine who wins. Each month Pepsi will make grants to the favorites.

Eligibility: K–12 public schools

Deadlines: Submissions for next grant cycles: October 1–5, November 1–5, 2011

Awards: Four grant sizes: up to 20 awardees/month, \$5,000; up to 15 awardees/month, \$10,000; up to 15 awardees/month, \$25,000; up to 10 awardees/month, \$50,000

Web: <http://www.refresheverything.com/how-it-works>

● The **Toshiba America Foundation (TAF)** offers grants for projects that focus on improving science and math education and the science and math of technology; after-school projects are not considered. Project applications must provide the student learning goals, methods of instruction, evaluation procedure and a budget detailing how items will be used in the project. Teachers are encouraged to call the Toshiba America Foundation team to discuss project ideas before submitting a completed online proposal.

Eligibility: K–5 teachers

Deadline: October 1, 2011

Award: Up to \$1,000

Web: <http://www.toshiba.com/taf/>

● The **LEGO Children’s Fund** provides grants for specific programs in early childhood education that target creativity or technology and communication projects that advance learning opportunities. Priority consideration is given to programs that meet the goals of the LEGO Children’s Fund and are supported in time and effort by LEGO employee volunteers.

Eligibility: Organizations that serve children from birth to age 14

Deadlines: Applications reviewed quarterly; next rounds, October 15, 2011, January 15, 2012, April 15, 2012 and July 15, 2012

Awards: Grants range from \$500 to \$5,000

Web: <http://www.legochildrensfund.org/mission.html>

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● The **NEA Student Achievement Grants** are awarded for programs seeking to improve student academic achievement with emphasis on the 21st century skills of critical thinking and problem solving that deepen students' knowledge of standards-based subject matter. The program should also improve students' habits of inquiry, learning and critical reflection.

Eligibility: K–12 teachers

Deadlines: Applications reviewed three times a year; next rounds, October 15, 2011, February 1, 2012 and June 1, 2012

Award: \$5,000

Web: <http://www.neafoundation.org/pages/educators/grant-programs/grant-application/student-achievement-grants/>

● **Build-A-Bear Workshop** provides direct support for literacy and education programs, such as early childhood education programs and literacy programs for children with special needs. The grants are made possible through the sale of Turner the Owl, a special furry friend available in all Build-A-Bear Workshop stores. With the sale of each Turner the Owl, 50 cents is donated to First Book and 50 cents is donated through the Build-A-Bear Workshop Bear Hugs Foundation to other literacy programs throughout the United States and Canada.

Eligibility: K–12 teachers

Deadline: Rolling through October 28, 2011

Award: Grants are a one-time contribution that ranges between \$1,000 USD and \$10,000 USD (average is \$1,500); grant requests should be in line with an organization's overall budget

Web: <http://www.buildabear.com/shopping/contents/content.jsp?catID=400002&id=700013>

● The **CVS Caremark Community Grants** program awards funds to public schools that promote a greater level of inclusion of students with disabilities in activities and extracurricular programs or encourage and enable these students to engage in physical movement and play.

Eligibility: K–12 public schools, nonprofit organizations

Deadline: October 31, 2011

Award: Up to \$5,000

Web: <http://info.cvscaremark.com/community/our-impact/community-grants>

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**Attention
Web
Browsers**

Web site addresses do change periodically. If you have difficulty connecting, use a search engine to get an updated address. These sites are recommended by teachers and editors for educational value, but all content and associated links are the domain of the site sponsor.





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● Grants from the **Fender Music Foundation** are awarded to established, ongoing and sustainable music programs in the United States that provide music instruction for people of any age who would not otherwise have the opportunity to make music. Grant requests should fall into the category of **in-school music classes, after-school music programs** not run by the school or **music therapy programs**. Almost all of the foundation's awards are traditional musical instruments and the equipment necessary to play them. To be eligible for a grant, the instruments and equipment must stay in the program for their life and be played/used by the participants.

Eligibility: Music students of all ages

Deadline: Rolling through November 15, 2011, or until foundation receives 50 candidate forms per grant category, whichever comes first

Awards: Instruments and equipment necessary to play them, ranging in value from \$500 to \$5,000

Web: <http://www.fendermusicfoundation.org/grants/index.cfm?sec-info>

● The **Schoolyard Habitat Program**, an initiative of the U.S. Fish & Wildlife Service, helps teachers and students create a school wildlife habitat. Typical projects include wetlands, meadows, forests and variations based on specific eco-regions.

Eligibility: K–12 schools

Deadline: December 31, 2011

Award: Up to \$8,000 toward project development

Web: <http://www.classroomearth.org/node/1893>

● The **Kinder Morgan Foundation** gives grants primarily to K–12 educational programs. Funding is provided to local, state and regional educational institutions, libraries and programs that provide ongoing support. The foundation also supports youth programs provided by local arts organizations, symphony orchestras, museums and others that focus on education, the arts and the environment.

Eligibility: Organizations must serve a community where Kinder Morgan has operations; general location information available on the About Us page

Deadlines: 10th of every other month beginning in January; applications postmarked on or before a deadline will be accepted

Awards: Grants range between \$1,000 and \$5,000

Web: <http://www.kindermorgan.com/community/>



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● **InvenTeams** is a national grants initiative of the **Lemelson–MIT program** that is designed to excite high school students about invention, empower students to problem solve and encourage an inventive culture in schools and communities. InvenTeams, composed of high school students, teachers and an industry mentor, are asked to collaboratively identify a problem to be solved, conduct research on the problem and then develop a prototype invention as an in-class or extracurricular project with the purpose of inventing something of value for their school or local community. The initial application is available online each fall and due in the spring (for grants awarded the following academic year).

Eligibility: High school science, math and technology educators

Deadlines: Early feedback and initial application, spring 2012

Awards: Grants of up to \$10,000 to support efforts of teams made up of 5 to 15 students

Web: <http://web.mit.edu/inventteams/>

● Each year the **ING Unsung Heroes program** selects 100 educators to receive grants to help fund their innovative classroom projects. Projects, under way or proposed, are judged on their “innovative teaching methods,” creative educational qualities and ability to positively affect students. Finalists are selected by Scholarship America, with the top three chosen by ING’s Educators Advisory Board. This year marks the 15th anniversary of the ING Unsung Heroes program.

Eligibility: K–12 education professionals and classified staff

Deadline: April 30, 2012

Awards: \$2,000; top three of those chosen receive an additional \$5,000, \$10,000 and \$25,000, respectively

Web: <http://ing.us/about-ing/citizenship/childrens-education/ing-unsung-heroes>

OPPORTUNITIES WITH NO DEADLINES

● The **Foundation for Technology and Engineering Educators**, in cooperation with **Pitsco/Hearlihy & Company**, offers the **Pitsco/Hearlihy/FTEE Grant** to recognize and encourage the integration of a quality technology and engineering education program within the school curriculum. Criteria include evidence of an effective quality technology and engineering education program, documented success in the integration of technology and engineering education with other academic subjects and plans for professional development via the anticipated grant. The award will be presented at the Annual Conference of the **International Technology and Engineering Educators Association (ITEEA)**.

Eligibility: K–12 technology and engineering teachers who are members of ITEEA and registered for the ITEEA Annual Conference

Deadline: Ongoing

Award: \$2,000

Web: <http://www.iteaconnect.org/Awards/granthearlihy.htm>

● **Adopt-A-Classroom** invites community donors to partner with teachers to provide funds for critical classroom resources and materials. By adopting a classroom, donors provide financial and moral support for teachers and students in a classroom selected by the community partner. When adopted, teachers have full discretion to purchase items that meet classroom instructional needs. Teachers can register *free of charge*, and donors can select from the group of participating schools and classrooms with a minimum donation of \$25. Parent-teacher groups or teacher teams can launch an Adopt-A-Classroom program in their community and use the online tools and resources to promote and track the adoption process.

Eligibility: K–12 teachers

Deadline: Rolling

Award: Varies

Web: <http://www.adoptaclassroom.org/>

● **ClassWish** helps teachers and schools attract donations for supplies from local businesses, alumni and others in the community. Teachers create their supply wish list, and ClassWish helps spread the word to parents and other supporters. Donors can search for school by name or zip code to see a list of educators with wish lists. Teachers can tap into the **Wish List Toolkit** for customizable emails, printable flyers, banners and other ideas for spreading the word to parents and other potential contributors.

Eligibility: K–12 teachers

Deadline: Rolling

Award: Varies, depending on wish list

Web: <http://classwish.org/teachers>

● The online charity **DonorsChoose.org** matches classroom needs with anonymous benefactors. Most of the requests are from educators in **low-income communities**. Requests range from pencils for a poetry-writing unit, to violins for a school recital, to microscope slides for a biology class. A new donor community recently came to life on DonorsChoose.org: community members are working together to fund classroom projects to support students with **autism**. On the Web site, find a **Teacher Tutorial** describing what you can request, as well as **tips for success** and **sample projects**.

Eligibility: Full-time, “front-line” educators at public schools (classroom teachers, librarians, guidance counselors)

Deadline: Rolling

Award: Varies

Web: <http://www.donorschoose.org/>

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● **Connect a Million Minds** is an initiative of Time Warner Cable that supports and inspires today's youth to develop the science, technology, engineering and math (STEM) skills they will need in order to become the problem solvers of tomorrow. Organizations may apply for **cash support**, which includes grants, project support and scholarships, or **in-kind support**, which includes *free/reduced* PSA airtime, video production and *free* discounted services.

Eligibility: Registered 501(c)(3) organizations for youth aged 11–18 in communities served by Time Warner Cable

Deadline: Rolling

Award: Varies

Web: <http://www.connectamillionminds.com/overview.php>

● The **Reading Conference Grants**, from children's book author **Bruce Larkin** and publisher **Wilbooks**, are intended to assist K–3 literacy professionals in developing their expertise in teaching reading by helping to offset expenses incurred while attending the **International Reading Association (IRA)** and **Reading Recovery (RR)** conferences.

Eligibility: Early literacy (K–3) professionals

Deadline: Rolling

Awards: 500 grants of up to \$200 each school year

Web: <http://www.wilbooks.com/scholarships/travelgrant.php>

● **Fruit Tree 101** is a program that brings fruit trees to schoolyards so students can improve the quality of air and water while creating a source of tasty snacks for decades to come. The **Fruit Tree Planting Foundation's (FTPF)** orchards have been planted throughout the United States. They include trees bearing figs, cherries, apples, pears, citrus, cherimoyas, sapodillas and more. Not only do the schoolyard fruit orchards help the environment, they also give teachers a reason to hold class outdoors when it's time for science lessons.

Eligibility: K–12 public schools

Deadline: Rolling

Award: A minimum of 20 to 25 fruit trees

Web: <http://www.ftpf.org/fruittree101.htm>

Plus: Find *free* **Arboricultural Resources** on the foundation's Web site.

Web: <http://www.ftpf.org/resources.htm>

Join the **Amazing Resources**
for **Educators** community on

edWeb.net

www.edweb.net/bdbt



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Awards and Competitions for Students and Educators

STUDENT COMPETITIONS AND AWARDS

● The 2011–2012 USA Mathematical Talent Search (USAMTS) is a *free* mathematics competition open to all U.S. middle school and high school students with a new format consisting of three **rounds** of five problems each. Unlike most mathematics competitions, the USAMTS allows individual students a full month to write careful justifications for their solutions to each problem. Students' solutions are graded by mathematicians, and comments are returned to the students. Each solution earns a score of from 0 to 5, evaluated on both mathematical correctness and writing style. The goal is to help all students develop problem-solving skills, improve their technical writing ability and mature mathematically. The USAMTS is one of the ways to enter the process of selecting the USA Mathematical Olympiad team, which participates in the **International Mathematical Olympiad**.

Eligibility: Students who are citizens or residents of the United States and have not yet completed high school; participants under age 13 must fill out a USAMTS Under 13 Permission Form (found on the Web site under Rules)

Deadlines: Problems for the first round available on Web site in early September; solutions for each round due one month later

Awards: Various prizes, such as books and software

Web: <http://www.usamts.org/index.php>

● Samsung Techwin America's Electronic Imaging Division's **SUPERHERO Competition** encourages students to discover themselves while learning about historical characters. To enter the competition, students must submit a digital video of one to three minutes in length, portraying a historical character. Videos will be judged on presentation, performance, character and content accuracy and quality.

Eligibility: K–12 students

Deadline: Competitions take place three times a year—winter, spring and autumn; November 30, 2011 for autumn entries

Awards: One student winner will be selected per competition and will receive \$500. In addition, the winner's class will receive a SAMCAM 860 document camera (MSRP \$799)

Web: <http://www.samsungk-12.com>



● The 2011 **Siemens Competition for Math, Science and Technology** was created by the **Siemens Foundation** and is administered by the **College Board** to foster intensive research that improves students' understanding of the value of scientific study and inform their consideration of future careers in these disciplines. Students can compete as individuals or as members of a team. The competition selects up to ten projects from individuals and teams from each of six geographic regions, which then compete at the national level for more scholarship awards.

Eligibility: High school students who are citizens or permanent residents (green cardholders) of the United States

Deadline: October 3, 2011

Awards: Scholarships range from \$1,000 to \$100,000

Web: <http://www.collegeboard.com/siemens/>

● Sponsored by the **National Science Teachers Association (NSTA)**, the “**Angela**” Award honors one female student in grades 5–8 who is involved in or has a strong connection to science. The awardee will be honored at the Teachers Awards Banquet at the NSTA National Conference on Education in Indianapolis, Indiana: March 29–April 1, 2012.

Eligibility: Female students in grades 5–8

Deadline: November 30, 2011

Award: \$1,000 US EE Savings Bond or Canada Savings Bond purchased for the equivalent issue price

Web: <http://www.nsta.org/pdfs/awards/Angela.pdf>

● Each year thousands of schools in the United States participate in the **National Geographic Bee**, using materials prepared by the **National Geographic Society**. The contest is designed to encourage teachers to include geography in their classrooms, spark student interest in the subject and increase public awareness about geography. Principals must register their school and submit the \$90 entry fee. Contest materials for a school-level Bee will be sent in mid-November.

Eligibility: Schools with students in grades 4–8

Deadlines: Early registration, October 15, 2011; final deadline, December 9, 2011

Awards: State winners invited to National Geographic headquarters in late May to compete in national finals for scholarships in the amount of \$25,000, \$15,000 and \$10,000

Web: <http://www.nationalgeographic.com/geobee/teachers-and-parents/>

Plus: Visit the Study Corner for practice quizzes and other Bee resources.

Web: <http://www.nationalgeographic.com/geobee/study-corner/>



● The Intel Science Talent Search (STS), conducted by the Society for Science & the Public, encourages talented high school seniors in the United States to pursue independent research in science, mathematics, engineering and medicine. Students must imagine the question, design the experiment, obtain data and formulate conclusions independently. Upon completion of their independent research, students write a 20-page Research Report, which they then upload to the competitions' Web site. Each entry must also include an online application, Teacher/Advisor Recommendation(s), a supervising scientist's Project Recommendation and a Special Report completed by a counselor. Each year 300 students and their schools are recognized as semifinalists; 40 student finalists are then selected and invited to Washington, D.C. for the final competition. Intel STS alumni have won seven Nobel Prizes, three National Medals of Science and two Fields Medals.

Eligibility: High school seniors

Deadline: November 2011; see Web site for specific date

Awards: Total amount of scholarships is \$1.25 million; \$100,000 college scholarship for first place

Web: <http://www.societyforscience.org/Page.aspx?pid=262>

● The John F. Kennedy Profile in Courage Essay Contest challenges high school students to conduct research and write about acts of political courage that occurred after the publication of John F. Kennedy's *Profiles in Courage* in 1956. Essay submissions must be less than 1,000 words and have a minimum of five sources, with at least one citation not from the Internet. (Citations and bibliography are not included in the word count.) Teachers are encouraged to use the four lessons in *Curriculum Ideas for the Classroom* to help each student develop a carefully researched, well-defined essay as a class project.

Eligibility: U.S. students in grades 9–12

Deadline: January 7, 2012

Awards: The first-place winner receives \$10,000—a \$5,000 cash award and \$5,000 to grow in a John Hancock Freedom 529 College Savings Plan—and is invited to the Profile in Courage Award ceremony to accept his/her award. (The ceremony is held in May at the John F. Kennedy Presidential Library in Boston.) A second-place winner receives a \$1,000 cash award, and up to five finalists each receive a \$500 cash award.

Web: <http://www.jfkcontest.org/>

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Web
Browsers**

Web site addresses do change periodically. If you have difficulty connecting, use a search engine to get an updated address. These sites are recommended by teachers and editors for educational value, but all content and associated links are the domain of the site sponsor.



● **Siemens We Can Change the World Challenge** is the only national sustainability challenge that empowers students in every grade level to develop and share environmental solutions that just may change the world. Teachers must register students and provide the mentoring for the team. The challenge focus for elementary school is change in their own classroom or schools. K–2 entries and 3–5 entries will be judged separately; and first-, second- and third-prize winners from both K–2 and 3–5 will be selected. The Siemens We Can Change the World Challenge at the middle school level encourages student teams, working with a teacher/mentor, to identify environmental issues of concern and create sustainable, reproducible improvements in their local communities.

Eligibility: Three levels: Elementary (K–5), Middle School (6–8) and High School (9–12)

Deadlines: Registration opens in August; challenge deadline will be in March 2012

Awards: Top prizes include a grant for the winning school and “green” prize packs full of the latest in fun and sustainable products for each member of the winning classes. Middle school prizes include a share in thousands of dollars in savings bonds and a Discovery adventure trip. The high school first-place team will receive \$50,000 to share equally among team members and a chance to tell their stories at the UN. The teacher of the first-place team will receive a \$5,000 grant for the school. Second-place team members will share \$25,000 equally and earn a \$1,000 grant for their school. Third-place team members will share \$10,000 equally and earn a \$500 grant for their school. Fifty-one finalist schools will receive *free* membership in the National Science Teachers Association (NSTA) for one year.

Web: <http://www.wecanchange.com/>

EDUCATOR COMPETITIONS AND AWARDS

● The IRA Award for Technology and Reading honors educators who are making outstanding and innovative contributions to the use of technology in reading education at the elementary and secondary school levels. The applications must include a broad overview of the program and its goals; student population; technologies used; learning activities performed by students; and results achieved in improving students’ reading and literacy abilities. There will be one grand-prize winner, seven U.S. regional winners, one Canadian winner and one international winner.

Eligibility: Any K–12 educator who works directly with students, aged 5–18, for all or part of the working day

Deadline: November 15, 2011

Web: http://www.reading.org/Resources/AwardsandGrants/teachers_presidential.aspx

Continued on page 18 ➡





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*Runtime may vary due to load and battery condition

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● The **Maitland P. Simmons Memorial Award for New Teachers** selects up to 25 K–12 teachers in their first five years of teaching to receive funds to attend the annual **National Science Teachers Association's (NSTA) National Conference on Science Education**. Award recipients will be mentored, tracked and provided with continuing opportunities for meaningful involvement with NSTA and its activities. Applicants must prepare a 500- to 750-word narrative describing a plan for their attendance at the national conference. Based on the previous year's national conference, applications should specify sessions they would attend (if they are offered again) and how the experience gained would advance their learning and that of their students.

Eligibility: K–12 teachers who are NSTA members and within the first five years of full-time teaching at the time of application

Deadline: November 30, 2011

Award: Up to \$1,000 toward expenses to attend the annual NSTA National Conference on Science Education to be held in Indianapolis, Indiana: March 29–April 1, 2012; awardees will be honored at the Teacher Awards Banquet during the conference

Web: <http://www.nsta.org/pdfs/awards/NewTeacher.pdf>

● The **Vernier Technology Awards** recognize and reward the innovative use of data collection technology using a computer, graphing calculator or other handheld in the science classroom. A total of seven awards will be presented: one award at the elementary level (K–5); two awards at the middle school level (6–8); three awards at the high school level (9–12); and one award at the college level.

Eligibility: K–16 teachers

Deadline: November 30, 2011

Awards: Up to \$1,000 toward expenses to attend the NSTA National Conference on Science Education to be held in Indianapolis, Indiana: March 29–April 1, 2012; \$1,000 in cash for the teacher and \$1,000 in Vernier products

Web: <http://www.nsta.org/pdfs/awards/Vernier.pdf>

● **Kappa Delta Pi Teacher of Honor** recognizes and honors practicing educators who demonstrate commitment to continual professional growth and integrity in the classroom. To be named a Teacher of Honor, you must provide evidence of your service to the profession and the community by addressing the ideals of Kappa Delta Pi stated in the Standards for Teachers of Honor.

Eligibility: Current active, renewed or new members of Kappa Delta Pi who meet the designated criteria

Deadline: Rolling

Awards: A pin and framed certificate, along with a letter of recognition and plaque sent to the school administrator

Web: <http://www.kdp.org/recognition/teacherofhonor.php>

Continued on page 20 ➡





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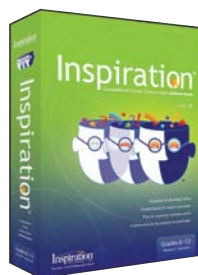
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● The Delta Education/Frey-Neo/CPO Science Awards for Excellence in Inquiry-based Science Teaching recognize and honor three full-time preK–12 teachers who successfully use inquiry-based science to enhance teaching and learning in their classroom. The curriculum program described in the application must have existed for at least one year and continue. The program must be unique and cannot be one that has earned an NSTA award in the past.

Eligibility: PreK–12 science teachers

Deadline: November 30, 2011

Awards: A \$1,500 prize and up to \$1,500 to attend the NSTA National Conference on Science Education to be held in Indianapolis, Indiana: March 29–April 1, 2012

Web: <http://www.nsta.org/pdfs/awards/Delta.pdf>

● Each year C-SPAN selects three teachers of social studies or other relevant subjects in grades 6–12 to apply for an opportunity to participate in the C-SPAN Teacher Fellowship Program. Successful applicants are members of the *free* C-SPAN Classroom who are able to demonstrate successful, innovative methods of integrating C-SPAN's programming and resources into their teaching practices. For four weeks during the summer, the Fellows work with C-SPAN's Education department to develop new teaching materials using C-SPAN resources.


Eligibility: Teachers of social studies or other relevant subjects in grades 6–12

Deadline: March 2012; check Web site for specific date

Awards: Airfare to and from Washington, D.C.; two nights' hotel stay and meals during the program

Web: <http://38.105.88.183/Teacher-Fellowships.aspx>

Free!

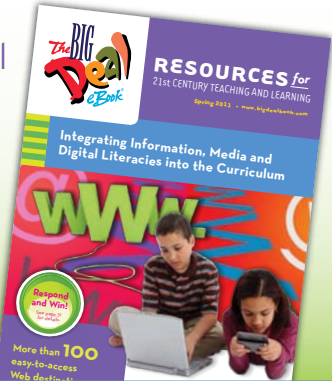


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Budget-Saving Professional Development

● **Annenberg Learner** is an extensive collection of *free*, cross-curricular workshops and courses for teachers' professional development at specific grade levels. The workshop and course resources consist of video, print and Web components that can be used for facilitated group study (with the facilitator guide) or for individual self-study and graduate credit. Each video course has detailed support materials and activities to promote successful implementation as well as a forum for communicating with other educators nationwide. The special Web sites for the videos are *freely* open to visitors and do not require a special user ID or password.

Suits: K–12 teachers and administrators

Costs: *Free* online; see Web site for costs of videos

Locations & Dates: Online; anywhere video on demand (VoD), anytime

Credits: Graduate credits available

Web: http://www.learner.org/channel/chnnl_workshops.html

Plus: Browse the complete list of Workshops and Courses categorized under Arts, Education Theory and Issues, History and Social Studies, Literature and Language Arts, Mathematics and Science.

Web: http://www.learner.org/workshops/workshop_list.html

● **Global Climate Change Modules** from PBS and NASA explore best practices for teaching issues related to global climate change to middle school and high school students. Funded by NASA's Global Climate Change Education initiative, each of the *free*, self-paced modules are designed to improve the quality of the nation's Science, Technology, Engineering and Mathematics (STEM) education and enhance students' and teachers' literacy about global climate and Earth system change from elementary grades to lifelong learners. Each module takes about three to five hours and looks at resources and content through the 5E design (Engage, Explore, Explain, Elaborate, Evaluate).

Suits: K–12 teachers, administrators, science curriculum specialists

Cost: *Free*

Locations & Dates: Online; anywhere, anytime

Web: <http://www.pbs.org/teachers/stem/professionaldevelopment/>

● **ISTE Learning** is a *free* learning community where teachers can use The Commons, Learning Labs, ISTE Cafe and ISTE U to share and communicate with colleagues while learning about educational technology.

Suits: K–12 teachers

Cost: *Free*

Locations & Dates: Online; anywhere, anytime

Web: <http://istelearning.org/>



● A *free* Webinar, **Introduction to the Response to Intervention Classification Tool and Resource Locator (RTI CTRL)**, contains both a Web-based self-assessment and a resource-filtering tool that can be used to find relevant resources. The self-assessment allows users to identify their current implementation activities within several elements of RTI, and the results of the assessment yield a set of useful resources that are relevant to their current implementation level and that may provide guidance as RTI is further implemented. A PDF of a PowerPoint presentation is also available as a *free* download from the **Center on Instruction (COI)** at RMC Corporation, with funding by the Office of Elementary and Secondary Education and the Office of Special Education Programs at the U.S. Department of Education.

Suits: K–12 teachers, administrators, content-area intervention teachers

Cost: *Free*

Locations & Dates: Online; anywhere, anytime

Web: <http://www.centeroninstruction.org/webex-introduction-to-rti-ctrl>

● The **Mentoring Information Kit** from EDUCAUSE contains online resources for developing a mentoring program, finding a mentor or even being a mentor for colleagues.

Suits: K–12 teachers, administrators, curriculum coaches, professional development staff

Cost: *Free*

Locations & Dates: Online; anywhere, anytime

Web: <http://www.educause.edu/mentoring>

Plus: Mentoring as a PD Development Tool is available as a *free* podcast from EDUCAUSE.

Web: <http://www.educause.edu/blog/gbayne/PodcastMentoringasaProfessional/214325>

● An archive of *free* media and technology webinars presented by PBS Teachers and Classroom 2.0 is accessible on PBS Teachers LIVE! The webinars address how to introduce and reinforce science and engineering concepts in the upper elementary and middle school classroom using “Design Squad,” “Fetch” and “Dragonfly TV.” Teachers have *free* access to the full version or audio recording of each archived webinar.

Suits: K–12 teachers and administrators

Cost: *Free*

Locations & Dates: Online; anywhere, anytime

Web: <http://www.pbs.org/teachers/webinar/archive.html>

Plus: Sign up for PBS TeacherLine and get email notification of *free* webinars the week of the event.

Web: <http://www.pbs.org/teacherline/>



● **Principles for Principals**, from the **Annenberg Foundation**, is a *free* series of eight professional development workshops for K–12 principals working to improve student achievement in math and science. Participants will learn about the impact of state and national standards, discuss varied approaches to teaching and learning in math and science, see new curricula being implemented and compare effective models of professional development for teachers and principals. View each professional development module online via Video on Demand (VoD).

Suits: Administrators and curriculum specialists

Cost: *Free*

Locations & Dates: Online; anywhere, anytime

Web: <http://www.learner.org/workshops/principals/>

● **Professional Development—Learning from the Best** is a 102-page resource book of best-practice strategies based on the experiences of award-winning sites of the U.S. Department of Education's **National Awards Program for Model Professional Development**. The *free* book provides schools and districts with step-by-step guidance for implementing strong, sustainable professional development that drives students' achievement of learning goals. The book can be viewed online as a secured PDF file.

Suits: K–12 teachers, administrators, curriculum specialists

Cost: *Free*

Web: <http://www2.learningpt.org/catalog/item.asp?SessionID=786861259&productID=4>

● The **Reflections Guides** from the **National Council of Teachers of Mathematics (NCTM)** use journal articles and other publications as a rich resource for professional development. The Reflections Guides present teachers with mathematical topics in lesson format to demonstrate best-practice strategies for the math classroom. The Guides are written by members of the NCTM Professional Development Services Committee (PDSC).

Suits: K–12 teachers, administrators, math curriculum specialists

Cost: *Free*

Locations & Dates: Online download; anywhere, anytime

Web: <http://www.nctm.org/profdev/content.aspx?id=8332#TCM>



Respond and Win an HP 16GB TouchPad

See back cover for details.



● **Solution Tree's** online resources are a way for teachers to further their professional development without having to leave the classroom. The *free* online study guides cover dozens of key professional development topics, including Aligning School Districts as PLCs, Beyond the RTI Pyramid, Inclusion Strategies and Interventions, Raising the Bar and Closing the Gap and The School Board Fieldbook. Many of the study guides also have reproducible—electronic forms and handouts—to download, copy and share.

Suits: K–12 teachers, administrators, curriculum specialists

Cost: *Free*

Web: <http://www.solution-tree.com/Public/OnlineResources.aspx?node=SG&Panel=ListResourceDocs&Topic=StudyGuides>

● If you're an educator looking for interactive, self-paced professional development, this Web site is for you. Select from the **Take Online Modules** at the **Library of Congress** and earn a printable certificate of completion for one hour of staff development. Choose from six multimedia-rich program modules: Introduction to the Library of Congress, Supporting Inquiry with Primary Sources, Copyright and Primary Sources, Analyzing Primary Sources: Photographs and Prints, Analyzing Primary Sources: Maps, and Finding Primary Sources.

Suits: K–12 teachers, administrators, curriculum facilitators, librarians

Cost: *Free*

Locations & Dates: Online; anywhere, anytime

Web: <http://www.loc.gov/teachers/professionaldevelopment/selfdirected/>

● **Speaker Resource Hub**, a professional development resource from EDUCAUSE, offers educators suggestions for improving conference and workshop presentations throughout the design process. Tips and resources are provided for improving a conference proposal, developing face-to-face presentations and creating a virtual presentation. Discussion Facilitation Resources and tips for Decoding Your Evaluations help to create an action agenda for the next presentation. Accompanying each type of presentation are articles and blogs highlighting specific tips as well as a Speaker Toolkit and Listen Bar featuring podcasts and screencasts of best-practice strategies.

Suits: K–12 teachers, administrators, facilitators, curriculum specialists

Cost: *Free*

Locations & Dates: Online; anywhere, anytime

Web: <http://www.educause.edu/ProfessionalDevelopment/SpeakerResourceHub/211276>

**Attention
Web
Browsers**

Web site addresses do change periodically. If you have difficulty connecting, use a search engine to get an updated address. These sites are recommended by teachers and editors for educational value, but all content and associated links are the domain of the site sponsor.





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● Both new and experienced teachers will like these 11 **Behavior Road Sign posters**, which can be downloaded for *free* and printed in letter size. Use the road signs to reinforce appropriate classroom behavior and create a fun environment for learning. The road signs are also available for purchase in poster size from **Behavior Needs**.

Format: PDF zipped file

Web: <http://www.needsfocused.com/posters/>

Plus: Several reports and strategy books are available for *free* as part of a retirement sale of products. Download the *How to Succeed with The Noisy, Difficult Students*, part of the **Take Control of Your Classroom** set.

Format: PDF

Web: <http://www.behaviourneeds.com/entry/index1.html>

● **Draw Anywhere**, a *free* Web-based **diagramming tool**, lets users create, modify and share diagrams. The tool works like a desktop application, but no software download is required. Draw, modify and share flowcharts, network diagrams, organizational charts and other diagrams. Login from anywhere and send diagrams to your printer or export as JPG, PNG, GIF or TIFF image files for use in presentations and other documents. You can copy many of the nearly 6,000 public diagrams to your account and modify them to fit your needs.

Format: Online application

Web: <http://www.drawanywhere.com/>

● *The Idea Book for Educators* is the biannual teacher's magazine created by the Education Department at **A&E Television Networks**. *The Idea Book* includes **Teacher's Guides** for programs featured in **A&E Classroom** and a print version of the **A&E Classroom Calendar** with airdates, program descriptions and copyright information. Request your *free* publication by filling out the online form.

Format: Print

Web: <http://www.aetv.com/class/teachingmaterials/index.html>

● **KIDiddles** offers the best in children's music—all at *no charge*. Listen to the music in the online videos or download an MP3 file of the songs. Find Action Songs, Animal Songs, Food Songs, Nature Songs, World Songs—and more. The subject list includes 15 million songs and videos, and everything is *free*, including hundreds of printable **lyric sheets**, **activity sheets** and **sheet music** ready to use in the elementary classroom.

Formats: Online video; MP3 song files

Web: <http://www.kididdles.com/>

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CDWG 1675346

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● **NASA eClips** are short, relevant educational video segments that inspire and engage students by helping them see connections among science, technology, engineering and mathematics (STEM) topics and the real world. New video segments are produced weekly, exploring current applications of STEM. The programs are produced for targeted audiences: K–5 (Our World), 6–8 (Real World), 9–12 (Launch Pad) and the general public. Educational material for this program is selected based on national curriculum standards identified by the **National Council of Teachers of Mathematics (NCTM)**, the **National Science Teachers Association (NSTA)**, and the **International Society for Technology in Education (ISTE)**.

Format: Video clips

Web: <http://www.nasa.gov/audience/foreducators/nasaclips/index.html>

Plus: The *free*, downloadable **NASA eClips Educator Guides** provide examples of how teachers may effectively use video segments as an instructional tool. The guides include instructional objectives, background information, links to video clips, instructions for delivering inquiry-based lessons, additional resources related to the topic and suggestions for extending or modifying lessons. All lessons are based on the 5-E (Engage, Explore, Explain, Extend, Evaluate) **instructional model** and are aligned to national standards for science, mathematics and technology. In addition, **individual activities** from the NASA eClips Educator Guides can be downloaded for use in informal settings. These **Guide Lites** include lesson objectives and a list of materials that are inexpensive and readily available. Each Guide Lite uses the Engage, Explain and Extend sections of the 5-E instructional model. NASA eClips video segments that support each activity are identified in the lesson.

Format: Print

Web: <http://www.nasa.gov/audience/foreducators/nasaclips/toolbox/guides.html>

● Visit the newly designed **Study Guides and Strategies** Web site for back-to-school ideas. A favorite for the start of the school year is a Flash file for developing a **daily schedule**. Students can also provide their input for a class schedule or create a personal schedule to help them prioritize their goals and activities for the school year. Links in the left-hand menu lead to **time-management** and **project-management problem-solving tasks**.

Format: Interactive Flash

Web: <http://www.studygs.net/schedule/>

● A **Google a Day** presents students with a question to answer every day. Students then put their search skills and Google tools to use to find the answer to the question. Although there is no right way to find the answer, there is only one correct answer to the question. Students can email their answer or challenge a friend or classmate to find the answer.

Format: Online application

Web: <http://www.googleaday.com/>



LANGUAGE ARTS

● **Holt Interactive Graphic Organizers** can help students brainstorm, organize and visualize their thoughts and ideas as they read and write. The organizers, which are categorized for easy selection, include Generating, Identifying, and Organizing Details; Determining Main Ideas and Drawing Conclusions; Order and Sequence; Comparison–Contrast and Cause and Effect; Process and Cycle Diagrams; Evaluating and Making Decisions; Vocabulary; and Miscellaneous Diagrams. Simply click on the image of a graphic organizer to download a *free* PDF of it. Once the organizer is downloaded to a computer, students can type in their comments and print it out to save for later use. Accompanying each graphic organizer are **Teaching Notes** with **step-by-step strategy lessons** that support reading and writing as well as **suggestions for differentiated instruction**.

Format: PDF

Web: <http://my.hrw.com/nsmedia/intgos/html/igo.htm>

● Browse the *free* **Reader's Theatre Play Scripts** from **Whootie Owl** to find complete Reader's Theatre scripts of stories with positive themes. The stories reflect a range of genres (riddle stories, classic stories, folk tales and more) from different parts of the world (India, England, Iraq, Norway, Africa, Spain, Argentina, Japan, France and others). Print the scripts for students to practice oral fluency and perform in the classroom.

Format: PDF

Web: http://www.storiestogrowby.com/script_body.html

Plus: Whootie Owl invites students who are in middle school or higher to write a Reader's Theatre script for any story on Whootie Owl's site that doesn't already have a script. Check the Web site for details on submitting a script for online publication.

Web: http://www.storiestogrowby.com/write_play_scripts.html

● **ReadingLessons** is a *free* reading program with step-by-step lessons to help young children learn to read, write and spell. Level One includes 60 lessons that address 44 phonemes: basic consonants, advanced consonants, short vowels, long vowels, "r"-controlled vowels and advanced vowels. The lessons are designed to be used in order, as each lesson builds on what has been taught in preceding lessons. Each lesson has a **video** that demonstrates the instructional process and online **teaching plans** with links to **Internet resources** for use during instruction. Along with the lessons, periodic **assessments** help to monitor students' progress. In addition, **52 SAM books** provide practice, fluency and comprehension. View a sample lesson on the phoneme /s/ and join the program to access the full complement of lessons and SAM books; membership is *free*.

Formats: Online; downloadable lesson videos; PDF

Web: <http://www.readinglessons.com/>

● The **StarVisions Exhibit** from **FableVision** features artwork by children's author/illustrator Peter Reynolds as well as students' stories inspired by the images. Invite students to read the online stories and select a picture that inspires them to write. Print out the images and publish them with students' stories or poems.

Format: Print

Web: <http://fablevisionlearning.com/northstar/starvisions/svision.html>

Plus: The *free*, full-color **North Star Mini Posters** of motivational quotes are especially designed for classrooms. The downloadable posters are based on the themes in *The North Star* book.

Format: PDF

Web: <http://fablevisionlearning.com/northstar/miniposters/index.html>

MATHEMATICS

● The **Math File Cabinet** from **Laura Candler** contains math folders, categorized by topic: Whole Numbers, Decimals, Graphing & Statistics, Fractions, Geometry, Time & Measurement, Problem Solving and Algebra & More. Each virtual file cabinet stores *free* printable lessons, activities and games, “best practice” strategies and even interactive **SMARTboard** files for use in the elementary/middle school math classroom.

Formats: PDF; binary files for SMARTboard activities; some publisher print materials

Web: <http://www.lauracandler.com/filecabinet/mathfiles.php>

● The **NASA Space Math Educator Guide** is comprised of a series of 20 practical **problem-solving math applications** related to **space science** for grades 7–9. The problems investigate space science phenomena, such as solar flares, satellite orbit decay and magnetism, as well as math applications, such as the Pythagorean Theorem, order of operations and probability. The problems are authentic glimpses of modern engineering issues that arise in designing satellites to work in space. Download the entire Educator Guide as a PDF or select individual problems to download.

Format: PDF

Web: http://www.nasa.gov/audience/foreducators/topnav/materials/listbytype/Space_Math_1.html

● Get *free* **How to Do Almost Anything in Math** videos from **Math Playground**. The videos are categorized by math focus area: Numbers and Their Properties, Arithmetic, Fractions, Decimals, Percent, Ratio and Proportion, Measurement and Data, Algebra and Prealgebra, and Geometry. Use the videos for whole-class review of key math concepts or as independent tutorials.

Format: Online video

Web: <http://www.mathplayground.com/mathvideos.html>

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\$223^{.99}

The L 300 virtual desktop delivers rich full-screen, full-motion multimedia playback; transparent USB redirection; and exceptional peripheral support.

- Easy to deploy using vSpace management tools
- Easy to manage



HP Compaq Elite 8200

CDWG 2345596

HP SMART BUY

\$879^{.99}

- 2nd generation Intel® Core™ i5-2400 vPro® processor (3.10GHz)
- Memory: 4GB
- 500GB hard drive
- Intel® HD Graphics 2000
- DVD±RW (±R DL)/DVD-RAM
- Windows® 7 Professional



HP Smart Buy savings reflected in advertised price; HP Smart Buy savings is based on a comparison of the HP Smart Buy price versus the standard list price of an identical product; savings may vary based on channel and/or direct standard pricing



Lenovo ThinkCentre® A70z 19" All-in-one PC

A productivity tool with great monetary value and reliable security features

CDWG 2281479

\$629^{.99}

- Intel® Pentium® processor E5700 (3GHz)
- Memory: 2GB/320GB hard drive



Learn more. Call or visit us online today.
800.808.4239 | CDWG.com/k12



SCIENCE AND HEALTH

● With **Google Body**, a detailed 3-D model of the human body, students can peel back anatomical layers, zoom in, click to identify anatomy or search for muscles, organs, bones and more. They can also share the scene being viewed by copying and pasting the URL.

Format: Online

Web: <http://bodybrowser.googlelabs.com/>

● **Periodic Table** is a *free* application containing all the elements of the Periodic Table, including **images of each element** in its natural state. The interactive Periodic Table also includes information on the element's boiling point, melting point, color and its discovery. In addition, students will find a **glossary** of key terms and **biographies** of important people having to do with the Periodic Table.

Format: Downloadable application

Web: <http://periodic-table.en.uptodown.com/>

● The **Safety Resources List**, from the **National Science Teachers Association (NSTA)**, is a compilation of *free* safety services and resources categorized for Middle/Secondary Schools and Elementary Schools. The list of resources includes professional societies, federal and state agencies, nonprofit and for-profit companies, and science supply houses that provide safety services and products for K–12 teachers and administrators.

Format: PDF

Web: <http://www.nsta.org/portals/safety.aspx>

● **Science and Safety: It's Elementary!** is a *free* 17-page **directory of science safety resources** for the elementary science classroom. Information includes common laboratory operating procedures, accident prevention tips, ways to identify and manage chemicals, protective equipment recommendations as well as field-experience and field-trip safety issues. Also included are **links to print and Internet resources** for the science classroom.

Format: PDF

Web: http://www.csss-science.org/downloads/scisaf_cal.pdf

● **Together Counts** is a *free* nationwide program inspiring active and healthful living. The principle behind the program is Energy Balance, which means balancing calories consumed with calories burned: “calories in, calories out.” Together Counts was started by **The Healthy Weight Commitment Foundation**, a national, multiyear effort designed to help reduce obesity, especially childhood obesity, by 2015. Use the **Tips and Video** to help get a school or family program started in your community.

Formats: Online; video

Web: <http://www.togethercounts.com/home>



HISTORY, SOCIAL STUDIES AND GEOGRAPHY

● **Democracy in America**, a *free video-on-demand* course in civics, covers topics of civic knowledge, skills and dispositions recommended by **The Civics Framework for the National Assessment of Educational Progress** developed by the U.S. Department of Education. The 15 half-hour video programs and related print and Web site materials provide inservice and preservice teachers with both cognitive and experiential learning in civics.

Formats: Online video; print

Web: <http://learner.org/resources/series173.html>

● **Civics Online** is a collaborative, online project providing a rich array of primary sources, **professional development tools** and **interactive experiences** to help in the teaching of civics. The Teachers section provides strategies for using primary sources in your classroom, teaching activities constructed around civic themes and case studies that examine how other teachers have used primary sources in their classrooms. The Students section of Civics Online allows your students to search for primary sources and learn about civics terms and historic periods (timelines). In addition, the civics explorations offer your students opportunities to trace key civic themes and use primary sources in considering current events.

Formats: Online; print

Web: <http://www.matrix.msu.edu/~civics/>

● **Purple America's** videos and resources provide educators with a fresh way to engage students in civic affairs during an election year and beyond. New tools meet national and state social studies and English language arts standards for grades 3–12. And youth-friendly **strategies** engage students in frank dialogue about American values, as they discover the American values in their community, define their personal values and decide and act on the values they wish to promote in their school.

Formats: Online video; print

Web: <http://purpleamerica.us/>

● **National Geographic Giant Traveling Maps** invite children in grades K–8 to explore geography in a very hands-on—or rather feet-on—way, and they are available for loan to your school. The maps' brightly colored, smooth vinyl surfaces accurately illustrate and label the countries, bodies of water, mountains and cities. Students can take part in activities, including safaris, scavenger hunts and competitive games. Along the way, they will gain knowledge of country locations, capital cities, population centers and physical features, as well as learn important historical, wildlife and cultural characteristics. Accompanying each map is a set of activities as well as atlases, books, music, videos and game materials.

Formats: Vinyl maps; print

Web: http://ngsednet.org/community/showcase_view.cfm?community-id=482

Resources for Mobile Learning

● **Adobe Digital Editions** software offers an engaging way to view and manage ebooks and other digital publications. Use it to download and purchase digital content, which can be read both online and offline. Transfer copy-protected ebooks from a personal computer to other computers or devices. Organize instructional ebooks into a custom library and annotate pages. Digital Editions also supports industry-standard ebook formats, including PDF/A and EPUB.

Cost: *Free* download for Windows and Mac

Web: <http://www.adobe.com/products/digitaleditions/>

● **Chatting About Books: Recommendations for Young Readers** is a *free* podcast subscription from ReadWriteThink for K–5. Instructional Specialist Emily Manning chats with students, parents and teachers about the best in children’s literature for ages 4–11. Podcast discussions include **reading tips** and **activities** to do with children before, during and after reading.

Cost: *Free* download

Web: <http://www.readwritethink.org/parent-afterschool-resources/podcast-series/chatting-about-books-recommendations-30130.html>

● **Leafsnap** is the first in a series of **electronic field guides** being developed by researchers from **Columbia University**, the **University of Maryland** and the **Smithsonian Institution**. This digital application turns users into citizen scientists, automatically sharing images, species identification and geo-coded stamps of species locations with a community of scientists who will use the stream of data to map and monitor the ebb and flow of flora nationwide. Leafsnap’s *free* mobile **app** for the **iPhone** and **iPad** uses visual recognition software to help identify tree species from photographs of their leaves. The collection currently includes the trees of New York City and Washington, D.C., and will soon grow to include the trees of the entire continental United States. The Leafsnap Web site contains Leafsnap’s high-resolution images of leaves, flowers, fruit, petiole, seeds and bark.

Cost: *Free*

Web: <http://leafsnap.com/>

● Students can explore the wildlife around them with the **Project Noah** app and help scientists with their data collection. They can post a new spotting, upload photos, tag plants and animals with location data, join missions and earn patches. The app also contains a **field guide** to help students identify the wildlife they find. The app is available for *free* for both **iPhone** and **Android**.

Cost: *Free* download

Web: <http://www.projectnoah.org>

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lenovo

Lenovo ThinkPad® T420i

Powerful portability with
visibly smart performance

CDWG 2330320

\$849.⁹⁹

- 2nd gen Intel® Core™ i3-2310M processor (2.10GHz)
- Intel® Centrino® Wireless-N 1000
- Memory: 4GB
- 320GB hard drive
- 14" LED backlit display with camera
- Windows® 7 Professional



Lenovo ThinkPad X120e

Featuring Lenovo's InstantResume technology

CDWG 2427129

\$649.⁹⁹

- AMD Fusion™ E-350 processor (1.60GHz)
- WLAN: 802.11b/g/n
- 4GB RAM/320GB hard drive
- 11.6" WXGA display with camera
- VISION Pro Technology from AMD
- Windows 7 Professional 64-bit
- AMD Radeon™ HD 6310 Graphics



TOSHIBA

Leading Innovation >>>

Toshiba Satellite Pro® C650-EZ1550

Ultramobile and affordable

CDWG 2404245

\$599.⁹⁹

- 2nd gen Intel® Core™ i3-2310M processor (2.10GHz)
- WLAN: 802.11b/g/n
- 4GB RAM/320GB hard drive
- 15.6" WXGA display with camera
- Windows 7 Professional 64-bit



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● **Earthweek: A Diary of the Planet** is a weekly summary of worldwide geography events. The interactive world map provides hot spots to find detailed information on earth news. The weekly diaries are archived for ready access. Get the **print version** (www.earthweek.com/Earthweek.pdf) or download the **free widget** for a class Web page or blog from the homepage. Teachers and students can follow geography events on a mobile device with **EarthWeek Twitter** and **EarthWeek Mobile**, available for the iPhone.

Cost: Free download

Web: <http://www.earthweek.com/>

● Incorporate current events into your teaching with the **Fluent News Reader**, the first mobile application to aggregate exclusively made-for-mobile content from trusted news sources, such as **CNN**, **Wall Street Journal** and **Washington Post**, into a single, easy-to-read and up-to-the-minute mobile newspaper. Browse by section, including world, business, sports, entertainment and technology; then dig deeper into any story and compare coverage from different outlets. The related-items function empowers students during current events discussions. It is easy to share the news via Twitter, Facebook or email, and the downloaded news is still accessible offline. Get the app for an **iPhone**, **iPod Touch** or **iPad** at the iTunes App Store, or for an **Android** from the Android Market.

Cost: Free download

Web: <http://www.fluentmobile.com/fluent-news-reader>

● The **free iFlashcards Study Helpers** can be carried on an **iPhone**, **iPod Touch** or **iPad** to study anytime, anywhere. Teachers can create the text for the flashcards on the computer and then upload the card set to a mobile device. Or they can identify the materials to focus on and let students create and edit the cards as a homework assignment or an extension activity for bonus points. There are five different study modes: preview, skim, medium, thorough and test. Download the Study Helpers app from the iTunes App Store.

Cost: Free download

Web: <http://itunes.apple.com/us/app/free-flashcards-study-helper/id333253443?mt=8>

● **Star Walk** enables users to point their iPhone at the sky and see what stars, constellations and satellites they are looking at in real-time. When they click on **Time Machine**, users can see what the sky looks like at any moment in the past or the future. **Satellite Tracking** lets users follow the rising of the Sun, Venus, Mercury, Jupiter and Saturn. The **View from the Earth** shows 3-D perspectives from anywhere on the planet. The app is designed for the iPhone, iPod Touch and iPad.

Cost: \$2.99.

Web: <http://itunes.apple.com/us/app/star-walk-5-stars-astronomy/id295430577?mt=8>



● **i-Stars** is a new Web site that brings reading to life. The i-Stars collection contains more than 100 **eBooks** created to inspire young readers, in the classroom or at home. Choose the format (Adobe PDF, Mobipocket, Microsoft Reader or Zinio) to use the eBooks on a whiteboard, PC or mobile device. Request a *free* eBook sample or buy the complete 100 eBook set with a permanent school site license and get the print copy for all 100 books *free*.

Cost: See Web site for pricing

Web: <http://istars.education.co.uk/Default.aspx>

Plus: Get help with using eBooks in the classroom with the i-Stars article series. Using **eBooks in your Classroom – a Teacher’s Guide** provides ideas for incorporating eBooks in class instruction and lessons on using eBooks for group reading, guided reading and homework. Click on the More About eBooks links in the right-hand menu box for additional ideas.

Cost: *Free* online

Web: <http://istars.education.co.uk/Displaycontent.aspx?ArticleId=49>

● Get *free* Lessons for Geographic Information Systems (GIS) from the U.S. Geological Survey (USGS) to expand the reach of classroom mobile learning. Activities have instructions for use with both ArcView and ArcGIS programs, as well as other GIS software. Many of the lessons were created for GIS beginners, but they can be adapted for users at other levels. Access the **Geographic Information Systems poster** for detailed background on GIS and its use in the geography curriculum.

Cost: *Free* online and download

Web: <http://education.usgs.gov/common/lessons/GIS/gis.html>

● **Lit2Go**, from Florida’s Educational Technology Clearinghouse, is a *free* online collection of **children’s literature** that can be read online or downloaded for audio listening on a mobile learning device. Users can download the stories and poems to an MP3 player and listen on the go or listen to the MP3 files on a computer. They can also view the text on a Web page and read along while listening, or they can print out the stories and poems to make a book. Users can browse by author, title, K–12 reading level (Flesch-Kincaid) or search the database by author, title or keyword. They can even launch iTunes and download files directly into a personal iTunes Library. An abstract, citation, playing time and word count are given for each of the reading passages. Many of the passages also have a related reading strategy identified. Each reading passage can also be downloaded as a PDF and printed for use as a read-along or as supplemental reading material for the classroom.

Cost: *Free* online and download

Web: <http://etc.usf.edu/lit2go/>

● Reading will never be the same after students begin using **MeeGenius** on a computer or mobile learning device. Each of the beautifully illustrated full-color classic books come with **audio playback** and **word highlighting**. The **personalize feature** allows a child's name as well as names for selected characters to be incorporated into the story.

Costs: Six *free* books are included online or accessible with the mobile app; additional books can be purchased for as little as \$0.99 each

Web: <http://www.mee genius.com/>

Plus: MeeGenius can now be accessed using Google TV to bring the full-color brilliance of the stories to the big-screen TV.

Web: <http://www.mee genius.com/googletv/>

● Designed for preK–8 students, **myON reader** is a **personalized literacy program** that motivates students to read by appealing to their interests and providing books at their individual reading levels. Students are given anytime, anywhere access to more than 1,000 enhanced **digital books** from **Capstone Digital**. The myON reader program develops a profile for each student based on interests and reading ability and then generates a recommended booklist. Reading scaffolds, including audio, highlighting and a dictionary, are embedded in the digital books to provide support for students at every reading level. The program also provides an accurate, real-time measure of what students read and how long it takes them to read, and it measures comprehension with end-of-book quizzes. Students can monitor their progress through their growth chart; teachers can track student progress through a personalized dashboard that helps them customize the experience for each student. Preview the myON reader program online and download the booklist.

Costs: *Free* preview and booklist; contact publisher for specific costs via the online form

Web: <http://www.thefutureinreading.com/>

● Visit the **Mobile Education Store** for several **iPhone** and **iPad apps** to use in developing language skills for elementary-aged students. **Sentence Builder** is designed to help students build grammatically correct sentences using 100 distinct pictures at three levels of play. **Question Builder** helps students learn to answer abstract questions and create responses based on inference. **Conversation Builder** uses a visual interface to help students learn multi-exchange conversations in a group or one-to-one conversation setting. And **Story Builder** lets students use a sentence lead and add details to record a story that can be played back in their own voice.

Costs: Sentence Builder, \$3.99; Question Builder, \$3.99; Conversation Builder, \$5.99; Story Builder, \$3.99

Web: <http://mobile-educationstore.com/>

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ASUS Eee PC™ 1011PX

Featuring Wi-Fi® and a 6-cell battery for extended power

CDWG 2401513

\$299.⁹⁹

- Intel® Atom™ processor N570 (1.66GHz)
- WLAN: 802.11b/g/n
- Memory: 1GB
- 250GB hard drive
- 10.1" WSVGA display with camera
- Windows® 7 Starter



Acer TravelMate® 4750-6867

Energy-efficient designs that help reduce power consumption

CDWG 2383772

\$599.⁹⁹

- 2nd gen Intel® Core™ i3-2310M processor (2.10GHz)
- WLAN: 802.11b/g/n
- Memory: 4GB
- 320GB hard drive
- 14" LED-backlit display with camera
- Windows 7 Professional 64-bit



HP Mini 5103

Maximize your mobility and stay productive on-the-go

CDWG 2158335

HP SMART BUY

\$419.⁹⁹¹

- Intel® Atom™ processor N455 (1.66GHz)
- WLAN: 802.11b/g/n
- 1GB RAM/250GB hard drive
- 10.1" WSVGA display with camera
- Windows 7 Starter



¹HP Smart Buy savings reflected in advertised price; HP Smart Buy savings is based on a comparison of the HP Smart Buy price versus the standard list price of an identical product; savings may vary based on channel and/or direct standard pricing

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● Watch the recording of the **Motivating Math Stations** webinar to learn specific strategies, management techniques and games to use in a math learning center. You can view the full webinar recording online for *free*, or you can purchase the **Math Stations Webinar Pack**, which includes an **MP4 video** for viewing on mobile devices, an **MP3 audio track** for listening only, the handouts referenced in the session, the chat transcript and printable presentation slides.

Costs: Online webinar, *free*; Math Stations Webinar Pack, \$5.95

Web: <http://www.lauracandler.com/strategies/mathcenters.php>

● Kick off mobile learning in the science curriculum with *free online experiments*, using probeware, from **PASCO**. Curriculum topics are classified under Biology, Chemistry, Physics, Earth/Environmental and Middle School. Each lesson includes the experiment setup, procedures and Datastudio file(s) for use with a sensor.

Costs: *Free* downloads; check Web site for educator prices for probeware

Web: <http://www.pasco.com/resources/online-experiments/index.cfm>

● Use the **PBS iPhone/iPad app** and watch the most popular and current PBS programs for *free*, and with minimal interruption, on a mobile device. PBS for iPad features more than 300 videos, including full-length episodes, segments and previews with new content updated daily. Content includes PBS primetime programs, such as *History Detectives*, *MASTERPIECE*, *Nature*, *NOVA* and *PBS NewsHour* segments.

Cost: *Free* download

Web: <http://www.pbs.org/services/mobile/>

● Get instructions on how to sync **Safari bookmarks** on the **iPhone** and **iPad** using **iTunes** or **MobileMe**. When you sync Safari bookmarks with the Mac, the sites added on either mobile device will be included in the bookmarks of both devices.

Cost: *Free* instructions online; check Web site for MobileMe cost

Web: <http://www.maciverse.com/sync-safari-bookmarks-to-your-ipad.html>

● **Savid** is a *free* tool that makes it possible to download videos from streaming-video sites, such as YouTube, Google Videos, Metacafe, in FLV, AVI, MOC, MPG or WMV formats, to a safe location on an instructional computer. Video download is simple: just paste the URL of the video to be downloaded into the form box and click Download. Savid then downloads the educational video without other content that may not be educational.

Cost: *Free*

Web: <http://www.savevid.com/>



● Enjoy all that your computer has to offer remotely from your mobile devices. With **Splashtop Remote Desktop**, you can fully access and control any computer running **Splashtop Streamer**. You can access your iTunes or Windows Media Library to play music, watch videos stored on your desktop computer, work on computer documents, such as Word, PowerPoint or Excel, from a tablet or mobile phone—and more. Get the app for an **iPhone**, **iPod Touch** or **iPad** at the Apple Store, or for an **Android** from the Android Market.

Costs: \$1.99 for iPhone/iPod Touch/iPad; scan the barcode on the site for Android app price

Web: <http://www.splashtop.com/remote>

● **VocabAhead** is a *free* vocabulary-building interactive. In the **Study Room**, young students can build a repertoire of elementary vocabulary; secondary students can study vocabulary from the SAT, GRE and ACT. More than 1,000 difficult vocabulary words are explained using **videos**. Students can take quizzes, create their own lists or share and import lists from others. Subscribe for the *free* **Vocabulary Video of the Day**. Teacher or student vocabulary videos can be created and uploaded to the VocabAhead Web site, where the best videos, as determined by user rating, are promoted to the Study Room.

Cost: *Free*

Web: <http://www.vocabahead.com/>

● **Myi—or my Internet**—is a service designed to help families and educators set boundaries for Web usage via **applications**. These apps allow users to establish timeouts from Internet use and block access to some content entirely or just during particular times. The system can be used to control computers, iPads, smartphones and other devices at the same time.

Costs: Buy the apps one by one—they range in price from \$1.99 to \$3.99—or purchase the whole apps package for \$29.95 annually.

Web: <http://www.myi.com/>

Plus: **Grow with myi** connects home and school in a protected Internet environment. Check the Web site for details and apps to add to the managed home-school space.

Web: <http://www.myi.com/schools>



Respond and Win an HP 16GB TouchPad

See back cover for details.

STEM Gems

● **The Connector** is a database of **events, activities and resources** in the local community that inspire young people to develop the important science, technology, engineering and mathematics (STEM) skills they will need in order to become the problem solvers of tomorrow. Users just type a zip code or keyword into the Search field to find community events, activities and resources that focus on STEM. Each database lists the opportunities, the sponsoring organizations, the locations and the scheduled dates. The description for each entry provides contact information, directions to the location using Google Maps and a link for sharing the opportunity via email.

Web: <http://connectamillionminds.com/connector.php>

● **Minnesota STEM** (mn-stem) is an educational Web site launched as part of a larger initiative promoting science, technology, engineering and mathematics (STEM). Through an assortment of **multimedia tools**, students learn that STEM applies directly to virtually every career field—from auto mechanic to aircraft engineers, from forensic scientists to firefighters. Although the resources are primarily for middle school teachers, some are suited to the high school level. Under the **Resources + Links** tab are links to organizations that focus on each STEM field and provide information on STEM-related careers. The **STEM Toolkit** tab leads to *free*, downloadable **Study Guides for Equation Charts, Conversion Charts and The Periodic Table of the Elements** as well as PDF files of **STEM Posters**.

Web: <http://www.mn-stem.com/>

● **The STEM Education Blog** disseminates curriculum ideas, projects, problems and thoughts about science, technology, engineering and mathematics (STEM) education in K–12. The blog invites comments and encourages teachers to share STEM lessons and resources used in the classroom. The posts are from a high school physics and engineering teacher, but the ideas span all grade levels.

Web: <http://stemeduc.blogspot.com/>

● **Teaching Science and Math** is a resource for using **LiveBinders**, a *free* Web 2.0 **tool** that enables educators to save and organize materials for any class in online “binders,” along with the capability to update the binders anywhere the educator has Internet access. The tabs and subtabs, similar to pages in a book, organize information and resources for easy student access. Additional design features allow teachers to upload resources (as PDF files) along with images, presentations, videos, podcasts, documents and more to a binder. The Web site also provides **strategies** for using LiveBinders in the science and math curricula.

Web: <http://www.teachscienceandmath.com/>

Continued on page 44 ➡





RM Software
included

Epson® BrightLink™ 455Wi

2500-lumen interactive projector

CDWG 2312820

\$2299.⁹⁹

High-performance projector and pen combination integrates interactive functionality in one machine without the constraints or expense of an interactive whiteboard.

- Interactive area up to 96" diagonal (WXGA)
- RS-232 and RJ-45 connectivity, plus built-in 12W speaker
- Two-year projector limited warranty, 90-day lamp limited warranty, Epson® Road Service Program and Epson PrivateLine® dedicated toll-free support



NEC NP-V260X

2600-lumen XGA projector

CDWG 2385527

\$512.⁷¹

Dual computer inputs ensure quick switching between presentations.

- HDMI™ input connects you to HD sources
- Lamp life: up to 3500 hours normal/5000 hours eco
- Crestron RoomView® provides unified management, including the ability to switch the power on and off for multiple projectors connected to a network



3D ready



Mitsubishi EX240U

2500-lumen XGA projector

CDWG 2097151

\$473.⁸⁰

HDMI assures compatibility with HD video sources while integrated Crestron RoomView support provides simple plug-and-play connectivity.

- Equipped with RJ-45 terminal for LAN connectivity
- Three-year parts and labor, three-year ERA¹ with 24-hour replacement and one-year lamp warranty

¹Express Replacement Assistance includes next-business-day replacement

3D ready



Learn more. Call or visit us online today.
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SCIENCE

● The Education Rocketry Web site, from the National Aeronautics and Space Administration (NASA), includes a **beginner's guide** to rockets, a **pictorial history** of rockets and an index of rocket topics (including math and science fundamentals). Spotlight features include **articles** on rocketry written on two levels, one specifically designed for K–4 readers and one designed for 5–8 readers. Students can even build a rocket, from the main engine to the payload fairing, with the **Rocket Science 101** interactive.

Web: <http://www.nasa.gov/audience/foreducators/rocketry/home/index.html>

● Exploring the Planets is an interactive study of the solar system from the Smithsonian National Air & Space Museum. The site highlights the history and achievements of planetary explorations, both on Earth and in space.

Web: <http://www.nasm.si.edu/research/ceps/etp/>

● On NSTA Lab Out Loud, teachers can get *free* podcasts of everything science from the National Science Teachers Association (NSTA). Watch the biweekly podcasts on science teaching, science news and anything else with “science” in it to add current news to your classroom science curriculum. All the podcast episodes are archived, making it easy to browse for topics of interest in your current curriculum.

Web: <http://www.nsta.org/publications/laboutloud.aspx>

● At the JASON Mission Center, educators can get *free* interactives from National Geographic and JASON Science. Click **Digital Labs and Games** under **Curriculum** in the menu bar to access science labs and interactive games, such as *Coaster Creator* and *StormTracker*. Download *free* lessons and activities for ecology, weather and energy to support the interactive online games.

Web: <http://www.jason.org/public/whatis/start.aspx>

Plus: The Teacher Tools section provides access to lessons for custom editing and student journals. Search by state standards for grades 5–8.

Web: <http://www.jason.org/public/WhatIs/JMCTeacher.aspx>

● The Schools Chemical Cleanout Campaign (SC3) Toolkit is the Environmental Protection Agency's (EPA) Web-based resource to help schools improve their chemical management practices and participate in partnerships to safely dispose of chemicals in schools. The list of resources includes the **SC3 Fact Sheet** (*freely* downloadable in PDF), which describes the EPA's program to protect students and staff through responsible chemical management.

Web: <http://www.epa.gov/osw/partnerships/sc3/toolkit.htm>



● The **Web-based Inquiry Science Environment (WISE)**, developed at the **University of California Berkeley** with support from the **National Science Foundation**, enables students in middle school and high school to examine real-world evidence and analyze current scientific controversies by designing and debating solutions. The *free learning modules* cover such areas as global climate change, hybrid cars, genetics and recycling. The modules, which are divided into **Activities** and **Steps**, include an **Inquiry Map** that scaffolds students' learning and guides their understanding. Developed around 18 topics that partner schools identified as important, the modules fit into six categories: Life Science, Physical Science, Earth Science (for middle school) and Biology, Chemistry and Physics (for high school). The **Teacher's PET** (Portal and Educator's Toolbox) helps teachers use the WISE modules in the classroom. Features include the **Project Library**, the **Project Editor** (which teachers can use to customize existing projects and even create new ones), **Management tools** (which allow teachers to view and assess student work and provide feedback) and **online supports**. Click the WISE4 hyperlink to explore the new **WISE 4.0**, now in open beta format.

Web: <http://www.wise.berkeley.edu/>

Web: <http://www.wise.berkeley.edu/pages/intro/wiseFlashIntro.php> [Teacher's PET (Part 6 under Introduction)]

TECHNOLOGY

● **Ask Kids** is a **search environment** for youth aged 6–12 that is safer and more age-appropriate than traditional adult search engines. Whether students have a homework assignment that requires research, a tough trivia game they are stuck on or just some questions for which they're seeking answers, **Ask Answers for Kids** can help them find reliable information. Students can browse the categories of questions or use the Search for Answers box to conduct a keyword search. Each Answer page, created by a team of experts and editors, includes links to reviewed resources, related topics and related questions.

Web: <http://answers.askkids.com/>

● The *free*, downloadable ***Educator's Guide to Cyberbullying and Cyberthreats***, published by the **Center for Safe and Responsible Use of the Internet**, defines and gives examples of terms related to cyberbullying, outlines the impact of cyberbullying, identifies and discusses online risky behaviors as well as youth-risk online factors and legal issues. The list of comprehensive school- and community-based approaches cover professional development, community education and student education about cyberbullying. A **cyberbully situation review** provides students with action options.

Web: <http://www.cyberbully.org/cyberbully/docs/cbcteducator.pdf>

● **HP and Scholastic** have created the skill-building **HP Environmental Education Program** for grades 4–6. The program introduces students to the concepts of product life cycle, environmental issues and the role that students can play in environmental responsibility. The **lesson plans** cover what is technology; how are electronics made, distributed and used; and how can electronics be disposed of responsibly. Designed to build skills in science, language arts and mathematics, each lesson plan includes **in-class** and **take-home activities** aligned with more than 30 U.S. national education standards.

Web: <http://www.hp.com/hpinfo/socialinnovation/us/programs/techloop.html>

● **OnGuard Online** offers practical tips and information from the U.S. government and the tech industry to help students learn about and avoid becoming victims of **Internet scams**. Topics include minimizing problems when making online purchases, avoiding phishing scams (with a fun Flash animation on how to tell if the user is being phished) and defending cell phones and PDAs against attack. Among the games are *Spam Cam Slam*, *The Case of the Cyber Criminal*, *Auction Action* and *Phishing Scams*. The site, including the games, is accessible in English and Spanish.

Web: <http://www.onguardonline.gov/> [English]

Web: <http://www.alertaenlinea.gov/> [Spanish]

Web: <http://www.onguardonline.gov/games/overview.aspx>
[online games (English)]

Web: <http://www.alertaenlinea.gov/games/overview.aspx>
[online games (Spanish)]

● ***Net Cetera: Chatting with Kids About Being Online***, a *free* booklet available from the **Federal Trade Commission**, outlines strategies for students, parents and teachers to safely navigate the Internet and mobile-phone technology. All resources can be read online or *freely* downloaded as PDF files. Also find **videos** for parents and students and a **PowerPoint presentation** for use during an online safety presentation.

Web: <http://www.onguardonline.gov/topics/net-cetera.aspx>

● **Teaching Kids' Vid** provides practical suggestions on how to integrate **video production** into the curriculum and explore the world of **media literacy**. Lessons and **tips** support the teaching of video production in the classroom, from scripting through filming, editing and final production.

Web: http://kidsvid.4teachers.org/nav_pages/teaching.shtml

Attention Web Browsers

Web site addresses do change periodically. If you have difficulty connecting, use a search engine to get an updated address. These sites are recommended by teachers and editors for educational value, but all content and associated links are the domain of the site sponsor.



ENGINEERING

● **Discover Engineering** promotes student exploration of careers in engineering. In **What's Engineering**, students learn about the engineering field by investigating career profiles and career facts. **Cool Stuff** is where students' imaginations meet reality. For example, the **Beat the Heat interactive** engages students in designing a house so that it uses the sun but is not too hot in the summer or too cold in the winter. One of the **Video Activities** shows the science behind the sun's energy for further exploration. Students can also examine **What's New in Engineering**, which presents even more interactive opportunities to examine engineering careers.

Web: <http://www.discoverengineering.org/>

● **Engineer Your Life** is a guide to engineering for high school girls. They can explore the possibilities in **Why Engineering?**, which provides 10 great reasons to love working as engineers. In **Meet Inspiring Women**, they can learn about 12 women who have made a difference in their engineering fields. And in **Find Your Dream Job**, they can get background information, project examples, salary ranges and links for finding more information on jobs in dozens of engineering fields—from aerospace to computer science to environmental. The site also has sections for **Counselors & Parents**, **Engineers and Middle School Girls**.

Web: <http://www.engineeryourlife.org/>

● **Engineering is Elementary (EiE)** is an elementary school curriculum from the **Museum of Science** in Boston, Massachusetts. The curriculum includes more than a dozen **engineering units** with titles such as “To Get to the Other Side: Designing Bridges” and “The Best of Bugs: Designing Hand Pollinators” for agricultural engineering. Coordinating with each unit is an **illustrated storybook** that features a child character from a different country or racial or ethnic background, who uses the Engineering Design Process to create a solution for a design challenge. A “**Try It**” activity at the end of each book invites young readers to engineer their own solutions to the same design challenge. The **Educator Resources** for each unit include Content Connections, Multimedia Resources and Supporting Documents, such as assessment options and rubrics.

Web: <http://www.mos.org/eie/storybooks.php>

● **Engineering the Earth: Exploring Wind Energy** is a hands-on project from **GirlStart** that presents step-by-step instructions for building a wind-powered car with turbines attached. The *free* 10-page PDF lesson contains all the materials needed for completing the project in the classroom, including handouts and background information. Related resources provide additional information for students about wind energy and engineering design.

Web: <http://www.girlstart.org/images/stories/gswindlesson2011.pdf>

● **PowerUp**, a *free*, online 3-D multiplayer game, allows students to experience the excitement and diversity of modern engineering while saving Earth from disaster. The game is designed to motivate students to apply science and math concepts in tackling real-world environmental problems. A detailed **teacher's guide with lesson plans** offers in-depth opportunities for exploration of the science and engineering concepts addressed in the game.

Web: <http://www.powerupthegame.org>

● **SPARK** (Starter Programs for the Advancement of Robotics Knowledge) is an initiative of **iRobot Corp.** Educators, parents and students can find robot-related resources to help build STEM curricula and use the wonder and genius of robots to inspire K–12 students in learning about science and engineering. Visit **Cool Stuff** to find robot programs, competitions and games for students. Students can submit their pictures, videos and drawings and begin planning now for **National Robotics Week**, the second week in April 2012.

Web: <http://spark.irobot.com>

● Combining robotics, biotechnology and engineering, the **Bionic Arm Design Challenge**, from **TryEngineering**, invites students to learn how engineers create working artificial arms by virtually designing and testing a robotic arm. Students must work within a budget to choose components that will create the best bionic arm and perform against criteria commonly used in the construction of real robotic arms. The site also includes links to additional research on bionic arms.

Web: <http://www.tryengineering.org/bionic.php>

● **Engineer It! Blow Your Mind**, from the **Oregon Museum of Science and Industry**, is a **simulation game** for designing a **prototype windmill**. Students find out how much energy a wind farm made from their prototype will generate. The simulation requires students to select a weather condition and decide on the blade angle and number of blades for their windmill design.

Web: http://www.tryscience.org/fieldtrips/fieldtrip_shockwave.html?omsi_windmill

● Students can prove their engineering knowledge with **Questioneering**, a fast-paced **trivia game** from **TryEngineering**. The game mode can be set for single player, multiplayer or team. The single-player game format has three stages: 30 seconds to answer 12 multiple-choice questions in stage 1; as many questions as a player can answer in 60 seconds in stage 2; and a choice of how many points to risk on one final question in stage 3. Students can challenge other players to match wits in a battle for engineering supremacy in the multiplayer and team format. The clock is ticking, so students must be quick with their answers.

Web: <http://www.tryengineering.org/trivia.html>

Continued on page 50 ➡





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MATHEMATICS

● The **AIMS Puzzle Corner** offers students a fun way to develop creativity, divergent thinking and persistence with more than 100 interesting mathematics puzzles. The puzzles are categorized by type and are listed in order of increasing difficulty. Categories are Arrangement Puzzles, Dissection Puzzles, Divergent Thinking Puzzles, Logic Puzzles, Miscellaneous Puzzles, Number Puzzles, Toothpick Puzzles, Topological Puzzles and Visual Puzzles. The puzzles have not been assigned a grade level because the ability to do a puzzle varies more by individual than by grade. There is a link to the solutions for all the puzzles.

Web: <http://www.aimsedu.org/puzzle/index.html>

Plus: Get *free video support* for the AIMS math activities. Check out the additional list of videos on YouTube.

Web: <http://www.aimsedu.org/resources/video/index.html>

● The **Futures Channel** is a *free* weekly online resource that incorporates new media technologies to connect scientists, engineers, explorers and visionaries with today's learners in grades 4–12. Each two- to five-minute **video** correlates with one or more math/science **lesson plans** that usually involve real-world problem solving and critical thinking skills. Sign up to receive the weekly **newsletter** for the latest videos and updates.

Web: <http://www.thefutureschannel.com/>

● **Math Is Fun** provides students with step-by-step instructions for performing various math functions. Ready-made **worksheets** on math skills can be printed out or completed online with a score upon completion. Each online worksheet allows students to select additional practice on the skill or to use a variation of the same worksheet for unlimited practice toward mastery. Every worksheet has thousands of variations, making it possible never to run out of practice material.

Web: <http://www.mathsisfun.com/converting-percents-fractions.html>

Plus: The **Unit Conversion Tool** lets students instantly do all types of a property conversions: acceleration, area, density, electricity, energy, force, force/length, length, light, mass, mass flow, power, pressure and stress, temperature, time, torque, velocity and speed, viscosity, volume and capacity, and volume flow. An **interactive slider** automatically changes the unit from 1 to 4 to view the conversion.

Web: <http://www.mathsisfun.com/unit-conversion-tool.php>

● All music lovers have to try this **pi interactive!** Select ten notes, one for each digit 0–9. The experiment converts the first 10,000 digits of pi into a musical sequence—an unusual feat that students are sure to enjoy. Try it when school starts and repeat it again on **pi Day, March 14, 2012**.

Web: <http://www.avoision.com/experiments/pi10k/index.php>



● **Seeing Math**, from **The Concord Consortium**, features **interactive software tools** to clarify **key algebra concepts** for middle school and high school students. Each interactive provides a real-time connection between representations of the mathematics (symbolic, graphical, etc.) so that changes in one representation instantly cause changes in another. Users can save images of their changes to share with others.

Web: http://seeingmath.concord.org/sms_interactives.html

● **WebMATH** generates **answers** to specific **math questions** and **problems**, displayed as soon as a user enters a problem and clicks “Convert.” Along with the answer, **WebMATH** shows the student how to arrive at the answer. Students can use the quick-jump drop-down menu to find solutions or click on the menu of tabs at the top of the page for answers to problems in specific math categories: Math for Everyone, General Math, K–8 Math, Algebra, Plots & Geometry, Trigonometry & Calculus and Other Stuff.

Web: <http://webmath.com/>

● Teachers can use **Mathopolis**, sponsored by **Math Is Fun**, to create their own **worksheets** and store them for ready online access. The many **skill games** on Mathopolis cover Space (measurement and geometry), Numbers (whole numbers, decimals and fractions), Memory and Data (code words, coordinates, ordering).

Web: <http://www.mathopolis.com/worksheets/create-worksheets.php>

● **NRICH** has hundreds of *free* mathematics enrichment materials for teachers and students aged 5–19. The Web site is updated with new resources on the first day of each month. All the resources are designed to develop content skills as well as problem solving and mathematical thinking skills. The **Problems** section includes an **interactive whiteboard page** with the problem, teacher’s notes, hints and a printable page. Teachers can submit student solutions by the 21st of each month to be considered for online display at the beginning of the next month. The weekly problems are presented at five difficulty levels, making differentiation easy. At the end of the week, the problems are archived, so the problems (and their solutions) are always available for use with students.

Web: <http://nrich.maths.org/public/>

Plus: Similar mathematical problem-solving activities can be found in **stemNRICH**, but in a scientific context.

Web: <http://nrich.maths.org/stemnrich>



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See back cover for details.

Interactive Web Sites for Student Engagement

● **Artsonia** is the world's largest children's art museum. Browse the media galleries for drawing, painting, sculpture and digital arts examples of student work. Explore the featured exhibits and school galleries. *Free* registration provides access to more than 3,700 art project lesson plan starters designed to give teachers ideas for using art in the classroom.

Web: <http://www.artsonia.com/>

● **Collaborize Classroom** is a *free* online learning platform that allows teachers to extend classroom discussions to a structured and online community. Collaborize Classroom provides four discussion format choices: students can either agree or disagree with a statement, answer a multiple-choice question, post responses or choose between adding a new response or voting for someone else's response. Detailed student participation reports can be used for grading. Download *free* lesson plans to jump-start your classroom discussions.

Web: <http://collaborizeclassroom.com/>

● When students think using the tools (icons) described in **Introducing Depth and Complexity**, they will learn to approach subjects from the point of view of an expert. In doing so, they will understand concepts in a deeper and more complex way. In this classroom technique for gifted students, *depth* involves digging into the language of the discipline, the big ideas, essential details, rules, patterns and trends, as well as exploring unanswered questions and ethics. *Complexity* involves recognizing change over time and multiple points of view across the disciplines. The icons presented can be used in teaching students how to examine a complex subject or topic in depth. An example demonstrates how to use the icons to incorporate depth and complexity into a topic as common as popcorn.

Web: <http://www.byrdseed.com/introducing-depth-and-complexity/>

● **PrimaryAccess** is a suite of *free* cloud-based online tools that allow students and teachers to use primary source documents to complete learning activities with digital movies, storyboards, rebus stories and other online tools. **PrimaryAccess MovieMaker** enables students to combine text, audio and images into personal narratives and digital stories, with a simple movie-making process. With **PrimaryAccess StoryBoard**, students can create comic strips and slideshows by combining images, thought bubbles, props and actors. **PrimaryAccess Rebus** makes it easy to create a written story that uses pictures as parts of the text. With this tool, students can explore primary sources by creating crops of those sources and using them to tell a story. PrimaryAccess is an initiative at the Center for Technology & Teacher Education in the Curry School of Education at the University of Virginia.

Web: <http://www.primaryaccess.org/>



● Cloud computing represents an opportunity for schools to harness powerful technology and enhance the learning environment, all while helping to lower costs and increase security. On **HP's Cloud Computing Digital Hub**, you'll find *free* resources, eBooks and other information about the movement to cloud-based infrastructures in K–12 education. Hosted on **TechLearning.com**, this is a one-stop source for all things cloud computing!

Web: <http://www.TechLearning.com/HPCloudComputing>

● **Symbaloo's** popular **visual organizing and sharing tool** is *freely* available to educators. **SymbalooEDU** comes with academic subject-specific resource pages, or “webmixes,” and fully embeddable tools, such as TeacherTube, Slideshare, Google Docs and Flickr. With a “Free Plus” account, you can add your school logo and customize the links. The site also allows students to easily share their Symbaloo pages and projects with classmates. Check out the online videos to see how more than 50,000 teachers are using SymbalooEDU in the classroom as a Personalized Learning Environment (PLE).

Web: <http://www.symbalooedu.com/>

LANGUAGE ARTS

● **The Interactive Raven**, from **TeachersFirst**, is an **online interactive** that helps students study the **vocabulary** and **literary devices** in Edgar Allan Poe's famous poem *The Raven*. The unit lets students view each stanza of the poem, pointing out Poe's use of some common literary devices. By moving the mouse over the highlighted words, students can learn more about Poe's use of these devices and what they mean.

Web: <http://www.teachersfirst.com/lessons/raven/start-fl.php>

● The collection of **modules** at **21stCenturyLit.org** includes lessons on digital literacy, information literacy and citizenship literacy that focus on the **reading and writing skills** students in grades 7–12 need and can be taught using journalistic methods and new digital tools. Students learn how to conduct research, find sources efficiently and effectively, integrate the use of content creation tools available on the Internet and collaborate with others. All modules include Rationale, Lessons, Worksheets and Appendices. The modular lessons have accompanying teacher notes and appendices with introductions to the skills.

Web: <http://21stcenturylit.org/>

● **The Island of the Blue Dolphins** comes alive with this **research-based interactive** in which students explore and chart the island, conduct research on the island's natives and study the wildlife on the island in order to rescue Karana, who is all alone on the Island of the Blue Dolphins. Once their research is completed, students report back to Father Rubio at the mission with the necessary information to earn a reward certificate.

Web: http://score.rims.k12.ca.us/score_lessons/dolphin/home2.shtml

● **VocabularySpellingCity** is a Web site where teachers can register for a *free* account and then access and save **word lists**, which students can use to play a variety of interactive learning games to practice their words. Students can even take spelling tests directly on the site. Click the tab for **Teacher Resources** to access the table of contents for word lists and articles. Two new pages appear in this Resources section: The **Compound Words** page outlines the different types of compound words and offers more than a dozen grade-leveled lists for use in games. The page also features a lesson video and games for elementary school students from VocabularySpellingCity's sister site, **Vocabulary Fun**. A detailed lesson plan combines the learning materials and games on both sites with specific hints on leading class discussions. The new **Analogies** page features video lessons and games. The site provides other prepared lists as well as the option for teachers to create their own lists. Students can access the lists created by their teacher for independent study at home.

Web: <http://www.spellingcity.com/>

● With **Phrasr**, students can create pictures for famous quotes from American history, literature or any other subject area. They simply enter a phrase into the form box on the Phrasr Web page, and Phrasr will find an image to illustrate each word in the phrase. Students can keep the images found or select new images. When they're satisfied with the images they've found, students enter a title for the activity and their name to identify their work; then they click Publish to save the phrase and accompanying images. Students can view the original photos at Flickr.com by clicking on them, or they can play the phrase again, recycle it or send it to a friend.

Web: <http://www.pimpampum.net/phrasr/index.php>

MATHEMATICS

● The technology-rich interactives on the **Corporation for Public Broadcasting's STEM Collaborative** Web site offer a fresh way to engage middle school students in active learning. The four **interactive online learning adventures** include *Math by Design*, which encourages problem solving and critical thinking while building math skills; *Proportion Land Park* in which students explore proportional reasoning skills to solve a variety of science-based, real-world problems; *Rock 'n' Roll Road Trip* in which students travel through world capitals to examine the relationship between music and math; and *Scale City* where students learn about the mathematics of scale while exploring eight roadside attractions. Each learning adventure is aligned to national standards and includes educator support materials, interactive experiences and lesson plans.

Web: <http://www.stemcollaborative.org/projects.html>

Continued on page 56 ➤



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● **Count Us In** is a collection of *free* interactive math games for elementary students. Children can play the 15 games online, or teachers can download any or all of the *free* games to play on a Mac or PC. Skills include counting, patterns, ordinal numbers, addition, subtraction, volume, length, chance and fractions. The Other Activities tab leads to **teacher resources** with suggestions for activities that support the skills in the interactive games.

Web: <http://www.abc.net.au/countusin/default.htm>

● **Farm Blitz** is a financial literacy game produced by FableVision and MIT Education Arcade for the **Doorways to Dreams (D2D) Fund**. The game helps students learn about savings and interest compounding while running a virtual farm. They take out loans to purchase seeds, pay off debt with earnings and save money by planting trees to use during an emergency when more money is needed to run the farm.

Web: <http://financialentertainment.org/play/farmblitz.html>

Plus: **Celebrity Calamity**, D2D's first product, is a video game that gives players valuable financial information they can use in daily life. In this online game, players become the Business Manager for three up-and-coming celebrities—Alice Albudget, Buster Buyin and Missy Moolah—who spend beyond their means. Players must effectively use a bank account, debit card and credit card to be successful.

Web: <http://financialentertainment.org/play/celebritycalamity.html>

SCIENCE AND TECHNOLOGY

● **ARKive** is a collection of wildlife films and photos that promotes the conservation of the world's **endangered species** using the power of wildlife imagery. The Explore ARKive tab leads to an index of images by species, eco-region or geographic area as well as quick access to educational resources and interactive games for students aged 5–16. The *free* teaching resources include classroom presentations, activities and handouts, teachers' notes as well as links to ARKive species profiles and scrapbooks.

Web: <http://www.arkive.org/education/>

● **NASA Education's Do-It-Yourself (DIY) Podcast** sets the stage for students to host a show that features astronauts doing experiments on the International Space Station or NASA experts explaining scientific concepts. NASA provides a set of **audio** and **video clips** along with links to images and information about science-related topics. Students can choose as many items as they want to include in a project and download them to their computers. The media file can then be distributed over the Internet for playback on students' personal computers or portable media devices. Teachers can access a blog to get tips and production ideas for incorporating the DIY Podcast resources into the classroom.

Web: <http://www.nasa.gov/audience/foreducators/diypodcast/>



● Students can tackle **real-life environmental issues** with each of the **problem-based learning scenarios** in **Exploring the Environment**. The new **Coral Reef module** takes a look at the real danger to the threatened coral reefs where 25 percent of all marine life live. In one challenge, students attempt to stop the loss of biodiversity by building artificial reefs and determine if this action will help preserve the coral reefs. In another challenge, students become part of the U.S. delegation to the United Nations Environmental Program in a simulation to stop the coral reefs from dying at an alarming rate. Each module has links to related online resources and detailed teacher pages. Other modules address Global Climate Change, Hurricanes, Yellowstone Fires, Mountain Gorillas, Water Quality and Florida Everglades.

Web: <http://www.cotf.edu/ete/>

Web: <http://www.cotf.edu/ete/modules/coralreef/CRmain.html>
[Coral Reef module]

Web: <http://www.cotf.edu/ete/modules/coralreef/CRsituation.html>
[Coral Reef challenges]

● In **Enchanted Learning's Hall of Astronomers**, students can find out how astronomers, astrophysicists, mathematicians and other scientists have contributed to knowledge of the universe. Hyperlinks within the brief annotations about each astronomer lead to an abundance of information on astronomy. An **Astronomy Dictionary** provides additional information, including charts, diagrams and graphs, on key terms related to astronomy.

Web: <http://www.zoomschool.com/subjects/astronomy/glossary/Astronomers.shtml>

● **Space Place** by NASA is a collection of astronomy-related learning experiences. For example, students can play *Juno Quest* to learn the real nature of Jupiter. The learning experiences fall under the categories **Explore** (fun facts, pictures, videos), **Do** (activities, books and coloring) and **Play** (interactive games, puzzles and quizzes). The site is accessible in English and Spanish.

Web: <http://spaceplace.nasa.gov/menu/play/> [English]

Web: <http://spaceplace.nasa.gov/sp/menu/do/> [Spanish]

● **Woogi World** is an online virtual community where K–6 students learn smart, ethical online behaviors through fun activities. The instructional **Cyber Hero** program includes educational games on **cyber safety** (*Keep Private* and *Chat Police*) and **cyber security** (*Compu-Protect* and *Crash & Tell*) as well as an **interactive comic book** on **cyber ethics** (*CyberBully Avenger*) and a **simulation** on **cyber health** (*Time Management*).

Web: <http://www.woogiworld.com/educators/>



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www.edweb.net/schoolleadership

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Teaching Students with Autism www.edweb.net/eden1

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School Library Program www.edweb.net/emergingtech

Amazing Resources for Educators www.edweb.net/bdbt



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Take a quick tour
www.edweb.net/tour



● In **Galaxy Hunter: A Cosmic Photo Safari**, students must watch out for the booby traps of bias, the vagueness of variability and the shiftiness of sample size as they travel on a photo safari through the Hubble Deep Fields. Students use an **interactive online Travelogue** to record their scientific findings as they progress through the photo safari and discover answers to the **Find Out questions** in each area of the investigation. The **Teaching Tips** link leads to background information and detailed lessons for use in integrating the interactive into the science curriculum.

Web: <http://amazing-space.stsci.edu/resources/explorations/ghunter/home.html>

HISTORY, GEOGRAPHY AND CULTURE

● The **Academy of Achievement** brings students together with the leaders, visionaries and pioneers who have helped to shape our world. **Achievement TV** is a library of video programs that brings the greatest achievers of our age into the classroom. Each Achievement TV program has support materials, such as a teachers' guide and student handouts. Video and audio of Achievement TV programs are available for purchase in the Achievement Store. In addition, **Achieve*Net Curriculum** materials are available for grades 4–6, 7–9, 10–12 and post-12th grade.

Web: <http://www.achievement.org/autodoc/page/gen/index.html>

Plus: Part of the Academy's History Makers course, **The Road to Civil Rights** module, includes three sections: **Civil Rights Pioneers**, **Segregation** and **Civil Rights Timeline**.

Web: http://www.achievement.org/curriculum/civil_rights01/module/player.html

● *Growth of a Nation* is a *free*, 10-minute movie that depicts the geographic history of the United States beginning in 1789. An interactive **Animated Atlas of American History** is divided into three parts: I. Completion of Territory (1789–1853), II. The Civil War (1853–1865) and III. Post Civil War (1865–1959). Students can select the mode in which they want to play the movie: straight through or individual parts with a pause at the end.

Web: <http://www.animatedatlas.com/movie2.html>

Attention Web Browsers

Web site addresses do change periodically. If you have difficulty connecting, use a search engine to get an updated address. These sites are recommended by teachers and editors for educational value, but all content and associated links are the domain of the site sponsor.

● **Liberty! The Road to Revolution** is an interactive game from PBS that tests students' knowledge about the American Revolution. As students navigate their way to independence, every correct answer gets them closer to liberty. The activities under the **Perspectives on Liberty** tab enhance students' knowledge of the people and times of the American Revolution. In **Daily Life in the Colonies**, students find out what life was like on an eighteenth-century colonial farm; in **The Global Village**, students learn what was happening in the world at the time of the Revolution; and in **Military Perspectives**, students compare the real-life differences between the American and British soldiers at the time.

Web: <http://www.pbs.org/ktca/liberty/road.html>

● In the interactive **Peace Corps Challenge** game, students have the opportunity to work in the fictional village of Wanzuzu as a Peace Corps volunteer. In the game, students explore eight critical challenges facing the villagers and determine realistic and sustainable solutions to improve the villagers' quality of life: water contamination, sanitation and disease, microfinance, barren fields, malaria, soil erosion, education of village girls and agroforestry. Students can face all eight challenges or choose a single challenge.

Web: <http://www.peacecorps.gov/kids/>

Plus: Extensive Teacher Resources help to develop 21st century skills, such as the use of perspective, critical thinking and collaboration. Additional educational resources, including lesson plans, Web quests and multimedia, are offered for each challenge.

Web: <http://www.peacecorps.gov/www/educators/lessonplans/lesson.cfm?lpid=3214>

● iCivics is a Web-based education project designed to teach students civics and inspire them to be active participants in our democracy. iCivics is the vision of **Justice Sandra Day O'Connor**, who is concerned that students are not getting the information and tools they need for civic participation, and that civics teachers need better materials and support. Students will learn how and why our Constitution was created and what some of its key characteristics are. They will also explore key amendments to the Constitution and their application in protecting citizens' rights. The *free* iCivics games include **Do I Have A Right?**, in which the player runs a firm specializing in constitutional law; **Executive Command**, which offers a chance to play president; **Supreme Decision**, about the Supreme Court; **Branches of Power**, which gives the player control of all three branches of government; and **LawCraft**, in which the player is a member of Congress. Each iCivics game is playable in one class period and has a detailed printable report at the end for grading purposes.

Web: <http://www.icivics.org>



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